REMARKS

Re-examination and favorable reconsideration in light of the above amendments and the following comments are respectfully requested.

Claims 18 - 20, 24, 29, 30, 32 - 34, 37, and 38 are pending in the application. Currently, all claims stand rejected.

By the present amendment, claims 18, 20, 24, 29, 30, 33, 37 and 38 have been amended; and claim 32 has been cancelled without prejudice.

In the office action mailed December 16, 2004, claims 18 - 20, 24, 29, 30, 32 - 34, 37 and 38 were rejected under 35 U.S.C. 112, first paragraph; and claims 20, 30, 33, and 38 were rejected under 35 U.S.C. 112, second paragraph.

It is submitted that the foregoing rejections have been traversed by the present amendment.

The objection to the claims raised by the Examiner has been duly noted. Appropriate correction has been made.

The rejection under 35 U.S.C. 112, first paragraph is believed to be mooted by the current amendments. For example, claim 18 has been amended to remove the language relating to the moiety of the linear peptide of sequence SEQ ID NO :23.

Claim 20 has amended to remove the language related to the moiety of the linear peptide of sequence SEQ ID NO :23; and the term "peptides" as active substances. With regard to the active substances, the specification recites on pages 17 - 18, Example 1, a method for vectoring the following chemical molecules: biotin (fluorescent marker) and doxorubicin (anti-tumoral). Enclosed herewith is a technical report from the inventors presenting additional working examples concerning a

method for vectorizing an active substance using the peptide of sequence SEQ ID NO:23, where the active substance is:
(i) a polypeptide (p. 1 - 3) selected from the group consisting of: cytochrome C (p. 1), mtb 8.4 protein (p. 2) and streptavidin/biotin (p. 3);
(ii) an antibody (p. 5) and more particularly an anti-biotin monoclonal antibody (p. 5);
(iii) a nucleic acid (p. 7) and more particularly the acycloguanosine (p. 7);
(iv) an oligonucleotide (p. 8) and more particularly a 33 mer 3'-FITC-labelled synthetic oligodeoxyribonucleotide (p.8);
(v) a chemical molecule (p 10 - 17) more preferably selected from anti-tumorals (p 10 - 14) and anti-bacterials (p. 14 - 17), wherein; the anti-tumorals are selected from the group consisting of: camptothecin (p. 10), paclitaxel (p. 11) and 2-pyrrolinodoxorubicin (p. 13); and the anti-bacterials are selected from the group consisting of: N-benzyl-penicillin (p.14) and vancomycin (p. 16).

With regard to claim 24, it has been amended to remove "peptides" as active substances. Also see the above comments about active substances presented in connection with claim 20.

Claim 29 has been amended to remove the term "peptides" as active substances; and the Y part (signal agent) of the compound. Also see the above comments about active substances presented in connection with claim 20.

Claim 32 has been cancelled.

With regard to claim 37, this claim has been amended to remove the terms related to a moiety of the linear peptide of sequence SEQ ID NO:23; the term "peptides" as active substances; and the Y part (signal agent) of the compound.

It is submitted that the claims as currently presented are enabled by the written description in the instant application. It is submitted that no undue experimentation is required to arrive at the isolated linear peptide of claim 18, to perform the methods of claims 20 and 24, to arrive at the compound of claim 37 and the composition of claim 33.

With regard to the rejection of claims 20, 30, 33, and 38, it is submitted that the amendments to claims 20, 30, 33 and 38 overcome the rejection. In response to the objection to the term "target", claim 20 has been amended to more precisely indicate that the target is selected from the group consisting of a particular cell compartment, a particular cell type, and a particular organ. With regard to a particular cell compartment as a target, Applicant notes that the specification recites the internalization ability of peptide-biotin and peptide-doxorubcin into the nuclear compartment by using the N-terminal end of the peptide to couple a short basic sequence, for example around 7 amino acid, corresponding to a nuclear localizing signal (see page 14, lines 3 - 14; p. 24, lines 4 - 6; and page 24, lines 17 - 22). With regard to a particular cell type as a target, the specification recites the internalization ability of the peptide SEQ ID NO: 23 (SM 2195) into tumoral cell lines (HT 29, HepG2, A172, HMCB, MCF7) as well as into non-tumoral cell lines (MRC5 and HuVec)(see page 21 - 24, Example 3). Moreover, please find enclosed a technical report from the inventors presenting additional working examples concerning: (i) the internalization ability of peptide SEQ ID NO:23-cytochrome C (p. 1), SEQ ID NO:23-mtb 8.4 protein (p. 2), SEQ ID NO:23-streptavidin/biotin (p. 3), SEQ ID NO:23-anti-biotin antibody (p. 5), SEQ ID NO:23-oligodeoxyribonucleotide (p. 8), SEQ ID NO:23-paclitaxel (p.

11) and SEQ ID NO:23-2-pyrrolinodoxorubicin (p. 13) into the tumoral cell line K562); (ii) the internalization ability of peptide SEQ ID NO:23-camptothecin (p. 10) into the tumoral cell line HT29; and (iii) the internalization ability of peptide SEQ ID NO:23-vancomycin (see p. 16) into the bacterial cell line MSSA. With regard to a particular organ as target, please find enclosed a technical report from the inventors presenting additional working examples concerning the internalization ability of peptide SEQ ID NO:23-N benzyl penicillin (p. 14) into the brain.

With regard to claim 30, the Examiner considers that there is insufficient antecedent basis for the limitation "the lysine of linear peptide (A) in claim 30 because there is no lysine in peptide (A). In response thereto, claim 30 has been amended to remove the phrase "or at the primary amino groups carried by the side chains of the lysines."

With regard to claim 33, the Examiner considers the claim to be indefinite because it is not clear what else is included in the pharmaceutical composition. In response thereto, claim 33 has been amended to precise that the pharmaceutical composition also optionally comprises an acceptable vehicle or carrier.

With regard to claim 38, the Examiner considers the claim to be indefinite because numerous chemical molecules such as undefined anti-tumorals, antivirals, anti-inflammatories and agents preventing the degradation of organs and/or tissues are included in the group. In response thereto, claim 30 has been amended to remove the terms "anti-inflammatories and agents preventing the degradation of organs and/or tissues; and add the term "anti-bacterials". The specification on page 12, lines 4 - 6 recites that the active chemical molecules could

be used for the treatment or the prevention of human or animal pathologies such as for example, but not restricted to ….

The specification recites a method for vectorizing the anti-tumoral chemical molecule doxorubicin (se page 18, Example 1) and its internalization ability into the tumoral cell line MCF7 (see page 24, example 4). Moreover, please find enclosed a technical report from the inventors preventing additional working examples concerning: (i) a method for vectorizing the anti-tumoral chemical molecule captothecin (see page 10) using the peptide of sequence SEQ ID NO:23 as well as their internalization ability into the tumoral cell line HT29; (ii) a method for vectorizing the anti-tumoral chemical molecule paclitaxel (see page 11) using the peptide of sequence SEQ ID NO:23 as well as their internalization ability into the tumoral cell line K562; (iii) a method for vectorizing the anti-tumoral chemical molecule 2-pyrrolinodoxorubicin (see page 13) using the peptide of sequence SEQ ID NO:23 as well as their internalization ability into the tumoral cell line K562; (iv) a method for vectorizing the anti-bacterial chemical molecule N-benzyl-penicillin (see p. 14) using the peptide of sequence SEQ ID NO:23 as well as their internalization ability into the brain; and (v) a method for vectorizing the anti-bacterial chemical molecule vancomycin (see page 16) using the peptide of sequence SEQ ID NO: 23 as well as their antibacterial activity on the bacterial cell line MSSA.

It is submitted that amended claims 20, 30, 33 and 38, when read in light of the specification, comply with the requirements of 35 U.S.C. 112, second paragraph.

For the foregoing reasons, the instant application is believed to be in condition for allowance. Such allowance is respectfully solicited.

The Examiner is hereby requested to enter the instant amendment for the purposes of appeal. The instant amendment does not raise any new issue which would require further search or reconsideration by the Examiner since the amendments are directed to overcoming only 112 issues. Further, the instant amendment does not raise any issue of new matter.

Should the Examiner believe an additional amendment is needed to place the case in condition for allowance, the Examiner is respectfully requested to contact Applicants' attorney at the telephone number listed below.

A notice of appeal is appended hereto in the event that the Examiner maintains the rejections of record. Also enclosed herewith is a check in the amount of $500.00 to cover the notice of appeal fee. Should the Director determine that an additional fee is due, he is hereby authorized to charge said fee to Deposit Account No. 02-0184.

Respectfully submitted,

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By _____

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Date: March 15, 2005

I, Nicole Motzer, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on March 15, 2005 .

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